

Board –CBSE

Class –8th

Topic –Conservation of Plants and Animals

Biodiversity: It refers to the variety of organisms existing on the earth. All of these organisms have their interrelationships and their relationship with the environment. Maximum diversity is found in forests



Different kinds of Animals and Plants

Loss of biodiversity is a serious problem and the following are the reasons that cause loss of biodiversity.

Deforestation:

- The clearing of forests and using the land for various purposes is termed as deforestation.
- It is responsible for a survival threat to many living organisms.

Causes of deforestation:



Rapid Urban Development



Agriculture related purposes



Fuel requirement, Making furniture



Setting up Industries

- Natural causes like forest fires, droughts, etc. are also responsible for deforestation.



Forest Fires



Drought

Consequences of deforestation:

- Increase in the temperature and pollution level.
- Decrease in the groundwater level, due to decreased percolation rate.
- Decrease in rainfall and fertility of the soil.
- Increase in natural calamities like floods, droughts, etc.
- Imbalance in atmospheric gases.
- Change in climatic conditions.
- Loss of natural habitat.
- Decrease in the water holding capacity and water infiltration rate of the soil. The other properties of the soil like nutrient content, texture, etc., also change because of deforestation.

- **Global warming:**

Deforestation leads to an increase in carbon dioxide levels in the atmosphere. The carbon dioxide gas traps the heat rays reflected from the earth's surface and this will result in an increase in temperature on earth and it will disturb the water cycle too and may reduce rainfall. This could cause droughts.



Global Warming

- **Desertification:**

Deforestation is also responsible for the change in soil properties. A lesser number of trees will result in more soil erosion. The removal of the top layer of soil will result in a hard rocky layer that is less fertile and humus. Eventually, the fertile land will be converted into deserts. Such a process is known as desertification.



Desertification

Conservation of Forest and Wildlife:

To prevent deforestation and for the conservation of forests and wildlife, the government has implemented many rules, methods, and policies.

Amongst many steps, areas called sanctuaries, national parks, and biosphere reserves have been marked where activities like plantation, cultivation, grazing, hunting, poaching, etc. are prohibited.

Wild Life Sanctuary:

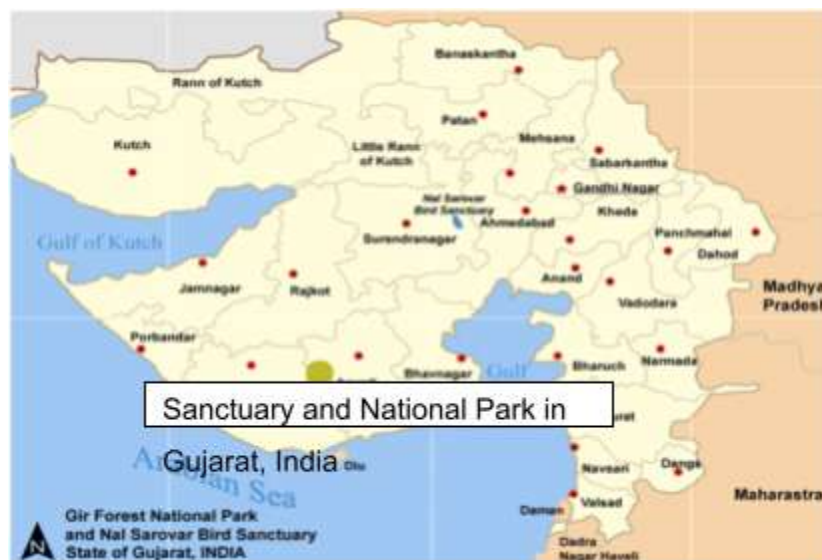
These are the places where animals and their habitats are safe from any external disturbances with very limited human activities.

Some of the well-known sanctuaries in India are Corbett National Park in Uttarakhand, Ranthambore National Park in Rajasthan, etc.

National Park:

These are the places where animals can use their habitats and natural resources freely.

Some of the well-known sanctuaries in India are Bandipur National Park in Karnataka, Keoladeo Ghana National Park in Rajasthan, etc.



Biosphere Reserve:

These are the places for the conservation of wildlife, animals, plants, the traditional life of tribes, etc.

These are the areas meant for the conservation of biodiversity.

The biosphere reserve conserves the biodiversity and culture of that particular area.

Biological Diversity or Biodiversity:

It refers to the variety of organisms living on the earth, their inter-relationships, and their relationships with the environment.

Some of the well-known biosphere reserves in India are the Nilgiri biosphere reserve in Karnataka, Sunder bans in West Bengal, etc.

The Pachmarhi Biosphere Reserve consists of one national park named as Satpura and two wildlife sanctuaries named as Bori and Pachmarhi.



Flora and fauna:

Flora:

The plants of a particular region or area are termed as its flora.

Examples of flora include sal, coral, teak, mango, Jamun, sunflower, etc.



Sal



Coral



Teak



Mango



Jamun



Sunflower

Fauna:

The animals of a particular region or area are termed as its fauna.

Examples of fauna include deer, lion, parrot, eagle, ant, goldfish, etc.



Deer



Lion



Parrot



Eagle



Ant



Goldfish

Species:

It is a group of organisms that are capable of interbreeding and can reproduce and give births to infants of the same kind and not of other kinds.

These organisms will possess the same characteristics.

Endemic Species:

These are the species that are completely confined in a particular area and not found anywhere else. Any animal or plant could be endemic to an area, a state, or a country.

If any destruction takes place at such habitats, then it could affect their population and could also endanger the entire species existence.

Example of endemic species includes tree-like sal, wild mango, etc. and animals like bison, Indian giant squirrel, etc. which are found only in Pachmarhi Biosphere Reserve.



Wild Mango Tree



Giant Squirrel

Wildlife Sanctuary:

These are the areas reserved for the protection, and giving suitable living conditions to animals. Activities like hunting; poaching, capturing, etc. of animals is prohibited in these sanctuaries.

Sanctuaries have given protection to many endangered species like blackbuck, white-eyed buck, elephant, golden cat, pink-headed duck, gharial, marsh crocodile, python, rhinoceros, etc.

Indian sanctuaries have unique landscapes - broad-level forests, mountain forests, and bushlands in deltas of big rivers.



Black Buck



Golden Cat



Pink Headed Duck

National Park:

These are the reserves that are large and diverse that provide protection to the entire ecosystem.

They preserve plants, animals, lands and historic objects, etc. of that particular area

Satpura National Park:

It is the first Reserve Forest of India.

The finest Indian teak is found in this forest. Moreover, rock shelters are also found in this park.

Even, rock paintings have been found in this place. These figures include animals and men fighting, hunting, dancing, and playing instruments.

An initiative “Project Tiger” was launched by the government to protect tigers in this place. The main aim behind this project was to protect and increase the tiger population of the country.

In earlier times, animals like lions, elephants, wild buffaloes, etc. were also found in this reserve forest.

Endangered species:

Those animals whose numbers are gradually decreasing and might get extinct soon are known as endangered animals.

The animals small in size are more likely to become endangered than the bigger animals.

Examples of some endangered animals are snow leopards, Giant pandas, whooping cranes, etc.



Leopard



Giant Panda



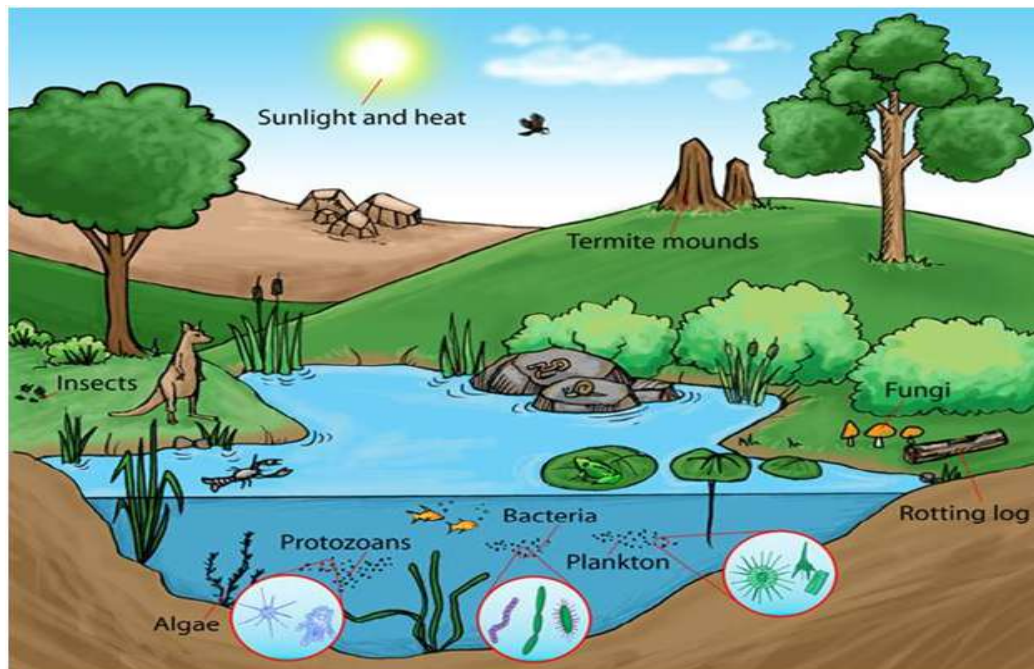
Whooping Crane

Ecosystem:

A biological community of interacting organisms and their physical environment.

It is a system that comprises all the plants, animals, and micro-organisms dwelling in a particular area along with non-living things like air, water, soil, etc.

The food chain in the ecosystem shows the interdependence of organisms on each other for food.



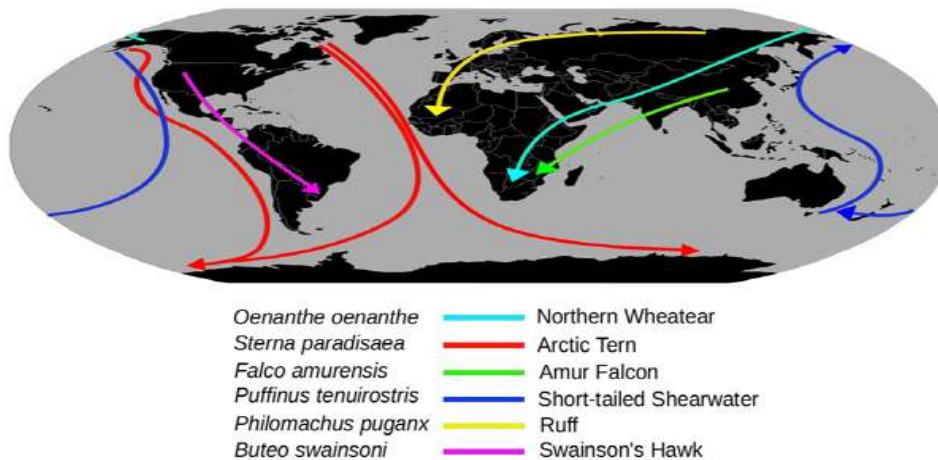
Red Data Book:

It is a book that has a list of all the endangered plants and animals. The books for plants, animals, and other species are all individual.

Migration:

It is the seasonal movement of animals, birds, etc. from one place to another in search of a better climate, breeding place, food, etc.

Many birds migrate from one part of the earth to another due to climatic changes mainly for breeding purposes. They need a suitable climate for rearing their young ones.



Recycling of paper:

One of the reasons for deforestation is the manufacturing of papers. Remember, lots of harmful chemicals are utilized in the manufacturing process of papers. It takes 17 full-grown trees to make one tonne of paper. Hence, it is advisable to save, reuse and recycle paper.



Paper can be recycled five to seven times for use.

Reforestation:

It is the restocking of deforested forests by planting new trees.



Steps to follow reforestation:

- Try to implant new plants of the same species which were present before.
- Try to plant the same or more number of trees as are cut.
- Natural reforestation – It is the natural growth of trees taking place at the deforestation site if left undisturbed. No human involvement is needed in this case.
- Forest Act - It is the act initiated to preserve and conserve forests so that people inhabiting these forests can fulfill their basic needs.

